

WHAT IS CLAIMED IS:

1. A swingarm suspension system for a vehicle comprising:

a swingarm having one end swingably attached to a pivot shaft provided on a vehicle body side and a vehicle wheel attached to another end;

a shock absorber having a lower end attached to a lower part of the swingarm;

a first link rotatably attached to an upper end of the shock absorber and an upper part of the swingarm; and

a second link rotatably attached to part of the vehicle body side lower down than the pivot shaft and the first link;

wherein an angle formed by a first axis, connecting respective centers of a rotational shaft of the first link and the swing arm and a rotational shaft of the first link and the second link, and a second axis, connecting respective centers of a rotational shaft of the first link and the second link and a rotational shaft of the second link and the vehicle body side, is set so as to pass through 90° while the shock absorber reaches from a maximum extension position to a maximum compression position.

2. The swingarm suspension system for a vehicle of claim 1, wherein a rotational shaft of the first link and the swingarm is provided at a position overlapping the swingarm as viewed from the side.

3. The swingarm suspension system for a vehicle of claim 1, wherein the swingarm is provided with a pair of mutually connected arm members, with reinforcement frames being provided on lower parts of the arm members.

4. The swingarm suspension system for a vehicle of claim 2, wherein the swingarm is provided with a pair of mutually connected arm members, with reinforcement frames being provided on lower parts of the arm members.

5. The swingarm suspension system for a vehicle of claim 1, wherein the first link includes a central portion and one end of the second link is rotatably attached to said central portion of said first link.

6. The swingarm suspension system for a vehicle of claim 1, wherein the first link is rotatably attached to an upper part of the swingarm in a direction towards the vehicle wheel.

7. The swingarm suspension system for a vehicle of claim 1, wherein said swingarm has a predetermined length and said first link rotatably attached to the upper part of the swingarm is attached closer to the vehicle body relative to the vehicle wheel.

8. The swingarm suspension system for a vehicle of claim 1, wherein the angle formed by the first axis and the second axis is an obtuse angle when the shock absorber is at the maximum compression.

9. The swingarm suspension system for a vehicle of claim 1, wherein the angle formed by the first axis and the second axis is an acute angle when the shock absorber is at the maximum extension position.

10. The swingarm suspension system for a vehicle of claim 1, wherein the first link is rotatably attached to an upper part of the swingarm in a direction towards the vehicle.

11. A swingarm suspension system adapted for use with a vehicle comprising:

a swingarm having a first end adapted to be swingably attached to a vehicle body and a second end adapted to be attached to a vehicle wheel;

a shock absorber having a lower end and an upper end, said lower end being attached to the swingarm;

a first link including a proximal end and a distal end, said proximal end being rotatably attached to the upper end of the shock absorber and the distal end being attached to the swingarm; and

a second link including a proximal end and a distal end, said distal end being adapted to be rotatably attached to the vehicle body at a point below the first end of the swingarm and the proximal end being attached to the first link;

wherein an angle formed by a first axis, connecting respective centers of a rotational shaft of the first link and the swing arm and a rotational shaft of the first link and the second link, and a second axis, connecting respective centers of a rotational shaft of the first link and the second link and a rotational shaft of the second link and the vehicle body, is set so as to pass through 90° while the shock absorber extends from a maximum extension position to a maximum compression position.

12. The swingarm suspension system for a vehicle of claim 11, wherein a rotational shaft of the first link and the swingarm is provided at a position overlapping the swingarm as viewed from the side.

13. The swingarm suspension system for a vehicle of claim 11, wherein the swingarm is provided with a pair of mutually connected arm members, with reinforcement frames being provided on lower parts of the arm members.

14. The swingarm suspension system for a vehicle of claim 12, wherein the swingarm is provided with a pair of mutually connected arm members, with reinforcement frames being provided on lower parts of the arm members.

15. The swingarm suspension system for a vehicle of claim 11, wherein the first link includes a central portion and one end of the second link is rotatably attached to said central portion of said first link.

16. The swingarm suspension system for a vehicle of claim 11, wherein the first link is rotatably attached to an upper part of the swingarm in a direction towards the vehicle wheel.

17. The swingarm suspension system for a vehicle of claim 11, wherein said swingarm has a predetermined length and said first link rotatably attached to an upper part of the swingarm is attached closer to the vehicle body relative to the vehicle wheel.

18. The swingarm suspension system for a vehicle of claim 11, wherein the angle formed by the first axis and the second axis is an obtuse angle when the shock absorber is at the maximum compression.

19. The swingarm suspension system for a vehicle of claim 11, wherein the angle formed by the first axis and the second axis is an acute angle when the shock absorber is at the maximum extension position.

20. The swingarm suspension system for a vehicle of claim 11, wherein the first link is rotatably attached to an upper part of the swingarm in a direction towards the vehicle.